



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,123	06/25/2004	Toshio Amaya	61352-078	7357
20277	7590	01/12/2006	EXAMINER	
MCDERMOTT WILL & EMERY LLP			LEE, GUNYOUNG T	
600 13TH STREET, N.W.			ART UNIT	
WASHINGTON, DC 20005-3096			PAPER NUMBER	
			2875	

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/500,123	<b>Applicant(s)</b> AMAYA, TOSHIO	
	<b>Examiner</b> Gunyoung T. Lee	<b>Art Unit</b> 2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/25/04, 6/30/05</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. The claims must be given their broadest reasonable interpretation. See MPEP § 2111.

### ***Abstract***

2. The abstract of the disclosure is objected to because the length of the abstract exceeds 150 words (see MPEP § 608.01(b)). Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. In regards to claim 1, the phrases "a shield portion for shielding gaps which formed between the housing and the lighting element and extends to the light emission face is provided between at least the rear face of the lighting element and the housing" in lines 8-10 of claim 1 fail to conform to idiomatic English and United States patent practice.

6. In regards to claim 2, the scope of "the unit" in line 2 of claim 2 lacks proper antecedent basis.

7. Claims 3-8 are necessarily included because of their dependency on claim 1.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –  
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. The functional statement that does not direct to structural limitations of an apparatus has not been given any patentable weight (see MPEP § 2114). The functional statements in the claims are not further given any patentable weight.

10. Claims 1, 3 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Cho (US 6,667,780).

11. In regards to claims 1, 3 and 7, as best understood by Examiner, Cho discloses a liquid crystal display (LCD) apparatus (Fig. 16, 1000) having:

- A lighting element (Fig. 16) provided with a light source (543), a light guiding plate (520) and a reflector (Fig. 3, 550) for covering a rear face and facets of the light guiding plate (520);
- A housing (Fig. 16, 210, 220);

- Wherein the housing has a frame portion (Fig. 16, 210) which covers the edge portion of the light emission face of the lighting element and a rear face supporting portion (220) which covers the rear face of the lighting element and a lower end portion of the frame portion;
- A shield portion (Fig. 16, 800) for shielding gaps formed between the housing (210, 220) and the lighting element;
- A liquid crystal panel (Fig. 3, 310) disposed on the light emission face side of the lighting element unit.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 2, 4-6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cho (US 6,667,780) as applied to claims 1 and 3 above, and further in view of Applicant's admitted prior art (Fig. 6).

14. In regards to claims 2, 4-6 and 8, as best understood by Examiner, Cho discloses the invention substantially as claimed except for:

- Heat discharge holes formed in a region of a rear housing (claim 2);

Art Unit: 2875

- A tabular (claim 4) (or box-shaped, claim 5) shield portion whose outer periphery is positioned between an inner periphery and an outer periphery of each of a frame portion;
- A shield portion made from material heat conductivity higher than that of the air (claim 6).

In regards to the heat discharge holes formed in a region of a rear housing, Applicant's admission discloses that the conventional lighting element unit (Fig. 6) for a liquid display device has heat discharge holes (15) positioned in a region of a rear housing (8) to discharge the heat from the lighting element unit (Specification, pages 5-6).

In regards to a shield with tabular or box shape, Cho further discloses that the shield portion (Fig. 4, 800) has an overall box shape with a tabular bottom portion. However, Cho does not expressly disclose that the peripheries (Fig. 4, 840 of box portion and 880 of tabular portion) of the shield portion are placed between an inner periphery and an outer periphery of a frame portion (Fig. 16, 210). However, it is obvious that the change in configuration to place the peripheries (Fig. 4, 840, 880) of the shield portion does not cause critical change in performance of the LCD display apparatus of Cho. The change may reduce the effort in assembly of the apparatus, which is desirable to reduce the cost of the manufacturing.

In regards to a shield portion with relatively high heat conductivity, Cho discloses implicitly that the shield port has high thermal conductivity (col. 11, lines 55-60). It is

well known and available knowledge to one of ordinary skill in the art that air has a relatively low thermal conductivity and acts as a thermal insulator instead of conductor. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the rear housing with heat discharge holes as shown in the Applicant's admission as a prior art and the thermal conductive shield portion with various configurations for the LCD display apparatus of Cho to provide better thermal dissipation means by conduction as well as by convection process through the heat discharge holes. This will prevent overheating in the system and provide stabilized thermal environment, which will enhance the performance of the LCD display system. Further, it has been held by the courts that a change in shape or configuration, without any criticality, is nothing more than one of numerous shapes that one of ordinary skill in the art would find obvious to provide based on the suitability for the intended final application. See *In re Dailey*, 149 USPQ 47 (CCPA 1966).

### ***Conclusion***


15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Imoto (US 5,742,366), Ozawa (US 5,990,989) and Lee et al. (US 6,295,105) show liquid crystal display systems with a backlight unit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gunyoung T. Lee whose telephone number is (571) 272-8588. The examiner can normally be reached between 7:30 - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra L. O'Shea can be reached at (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GTL  
1/8/2006



JOHN ANTHONY WARD  
PRIMARY EXAMINER